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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,772	08/24/2001	Malgorzata A. Brothers	TI-32322	2924

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EXAMINER

NGUYEN, FRANCIS N

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 04/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

11

Office Action Summary

Application No.

09/938,772

Applicant(s)

BROTHERS ET AL.

Examiner

FRANCIS NGUYEN

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Patton (US Patent 4,852,057).

As to claim 1, Applicant's admitted prior art teaches a handheld device having a user interface capable of selection of mathematical object of a more complex mathematical object comprising

a screen capable of displaying mathematical objects (screen 11 shown in figure 1) and a cursor (symbol inherent when screen is on to indicate a desired item on screen 11 in figure 1)

; a key panel having keys at least capable of selecting positions of said cursor and moving said cursor horizontally or vertically on said screen (directional keys located on top right or key panel shown in figure 1);

a processor (processor 13 shown in figure 1) for executing programming that provides a user interface to allow a user to perform the following steps: a) scroll the cursor to a valid mathematical object in a historical display (Applicant's disclosure , page 1, lines 23-24),

Art Unit: 2674

However, Applicant's admitted prior art fails to expressly teach activating a sub-expression mode having a selection box. Patton teaches activating a sub-expression mode having a selection box (select sub-expression menu in step 1209 shown in figure 12B, selection box 14 column 7, lines 63-64, column 8, lines 22-23, column 9, lines 55-59). **It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Applicant's admitted prior art then provide a selection box for subexpression mode, as taught by Patton in order to obtain the apparatus of Applicant's admitted prior art modified by Patton, because it will provide capability to select and carry out an algebraic manipulation in a manner which precludes the possibility of error, as taught by Patton (column 1, lines 65-68), and faster and simpler user input. This corresponds to the claimed step activate a) sub-expression mode having a selection box .** Note Patton also teaches step c) size and position the selection box over a valid object (symbol SIZE shown in figure 11L, symbols for cursor left and cursor right shown in figure 11P is used for positioning) , and Applicant's admitted prior art teaches step d) copy the object (keys COPY and PASTE shown in figure 1).

As to claim 2, the handheld device of Claim 1, where in said processor is further programmed to size and position the selection box using only directional keys and modifier keys (Applicant's admitted prior art, directional keys shown in figure 1, also Patton teaches symbol SIZE shown in figure 11L, symbols for cursor left and cursor right shown in figure 11P is used for positioning

Art Unit: 2674

As to claim 3, the handheld device of Claim 1, wherein said processor is further programmed to paste the copied object (Applicant's admitted prior art teaches PASTE key shown in figure 1)

As to claim 4, the handheld device of Claim 3 wherein said processor is further programmed to allow the user to use the copied object in other mathematical applications (Applicant's admitted prior art, teaches COPY/PASTE keys shown in figure 1 which allow user to copy to any other screen location as needed).

As to claim 5, Applicant's admitted prior art teaches a graphing calculator having a user interface capable of selection of mathematical object of a more complex mathematical object comprising

a screen capable of displaying mathematical objects (screen 11 shown in figure 1) and a cursor (symbol inherent when screen is on to indicate a desired item on screen 11 in figure 1) ;

a key panel having keys at least capable of selecting positions of said cursor and moving said cursor horizontally or vertically on said screen (directional keys located on top right or key panel shown in figure 1);

a processor (processor 13 shown in figure 1) for executing programming that provides a user interface to allow a user to perform the following steps: a) scroll the cursor to a valid mathematical object in a historical display (Applicant's disclosure , page 1, lines 23-24),

However, Applicant's admitted prior art fails to expressly teach activating a sub-expression mode having a selection box. Patton teaches activating a sub-expression mode having a selection box (select sub-expression menu in step 1209 shown in figure 12B, selection box 14

Art Unit: 2674

column 7, lines 63-64, column 8, lines 22-23, column 9, lines 55-59). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Applicant's admitted prior art then provide a selection box for subexpression mode, as taught by Patton in order to obtain the apparatus of Applicant's admitted prior art modified by Patton, because it will provide capability to select and carry out an algebraic manipulation in a manner which precludes the possibility of error, as taught by Patton (column 1, lines 65-68), and faster and simpler user input. This corresponds to the claimed step activate a) sub-expression mode having a selection box. Note Patton also teaches step c) size and position the selection box over a valid object (symbol SIZE shown in figure 11L, symbols for cursor left and cursor right shown in figure 11P is used for positioning), and Applicant's admitted prior art teaches step d) copy the object (keys COPY and PASTE shown in figure 1).

As to claim 6, the graphing calculator of Claim 5, where in said processor is further programmed to size and position the selection box using only directional keys and modifier keys (Applicant's admitted prior art, directional keys shown in figure 1, also Patton teaches symbol SIZE shown in figure 11L, symbols for cursor left and cursor right shown in figure 11P is used for positioning

As to claim 7, the graphing calculator of Claim 5, the graphing calculator of Claim 5 wherein said processor is further programmed to allow the user to use the copied object in other mathematical applications (Applicant's admitted prior art teaches keys COPY and PASTE shown in figure 1).

As to claim 8, the graphing calculator of Claim 5 wherein said processor is further programmed to allow the user to use the copied object in other mathematical applications(Applicant's admitted prior art teaches keys COPY and PASTE shown in figure 1).

As to claim 9, Applicant's admitted prior art discloses a software user interface for a graphing calculator having an input display (software user interface residing in memory 14 executed by processor 13 as shown by figure 1, graphing calculator having screen 11 shown in figure 1 of Applicant's disclosure , figure 1) with mathematical objects which allows a user to perform the following steps: a) scroll a cursor to a mathematical object in a history display (Applicant's disclosure , page 1, lines 23-24).

However, Applicant's admitted prior art fails to expressly teach activating a sub-expression mode having a selection box. Patton teaches activating a sub-expression mode having a selection box (select sub-expression menu in step 1209 shown in figure 12B, selection box 14 column 7, lines 63-64, column 8, lines 22-23, column 9, lines 55-59). **It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Applicant's admitted prior art then provide a selection box for subexpression mode, as taught by Patton in order to obtain the apparatus of Applicant's admitted prior art modified by Patton, because it will provide capability to select and carry out an algebraic manipulation in a manner which precludes the possibility of error, as taught by Patton (column 1, lines 65-68), and faster and simpler user input. This corresponds to the claimed step activate a) sub-expression mode having a selection box .**

Art Unit: 2674

Note Patton also teaches step c) size and position the selection box over a valid object (symbol SIZE shown in figure 11L, symbols for cursor left and cursor right shown in figure 11P is used for positioning), and Applicant's admitted prior art teaches step d) copy the object (keys COPY and PASTE shown in figure 1).

As to claim 10, the user interface of Claim 9, wherein said processor is further programmed to allow the user the copied object in other mathematical applications (Applicant's admitted prior art teaches keys COPY and PASTE shown in figure 1).

As to claim 11, the user interface of Claim 9, wherein said processor is further programmed to allow the user to use directional keys to size and position the selection box over any object of the more complex mathematical object (Applicant's admitted prior art teaches keys COPY and PASTE shown in figure 1).

CONCLUSION

3. The prior art made of record but not relied upon is pertinent to Applicant's disclosure

US Patent	5,067,102	Eisenstein
US Patent	5,594,673	Coffin
US Patent	5,559,512	Jasinski et al.
US Patent	5,515,304	Ishii et al.
US Patent	5,335,193	Kawasaki

Reference Eisenstein is made of record as it discloses a method and apparatus for displaying and editing mathematical expressions in textbook format.

Art Unit: 2674

Reference Coffin is made of record as it discloses a method and apparatus for displaying menu options for selection with a minimum of key strokes.

Reference Jasinski et al. is made of record as it discloses a method and apparatus for entering alpha-numeric data.

Reference Ishii et al. is made of record as it discloses a portable calculator for an array calculation.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **FRANCIS N NGUYEN** whose telephone number is **703 308-8858**. The examiner can normally be reached during hours 8:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached at 703 305-4079.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service whose telephone number is (703) 306-0377.

Application/Control Number: 09/938,772

Page 9

Art Unit: 2674

A handwritten signature in black ink, appearing to read 'Francis N. Nguyen', written in a cursive style.

FN

April 18th, 2003

FRANCIS N NGUYEN

Examiner

Art Unit 2674